NATURAL RESOURCE INFORMATION SYSTEM

What are you looking for?

Search GIS Data List...   [Search]

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◉ GIS Data List   ○ Geographic Information Clearinghouse

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Data Discovery and Access

- Geographic Information Clearinghouse
- Data List | Data Bundler
- Montana Spatial Data Infrastructure (MSDI)
- Aerial Photos | Web Map Services

Featured Applications

- Montana Cadastral Application
- Montana Digital Atlas
- Natural Heritage Map Viewer
- Montana Field Guide

Featured Services

- Montana Geography Facts
- Legislative Snapshot
- Water Information System
- Montana Natural Heritage Program

GIS Community

- State GIS Coordination
- MAGIP
- MAGIP Calendar

About the Natural Resource Information System

Established in 1985 by the Montana Legislature, the Montana Natural Resource Information System (NRIS) was designed to simplify the task of identifying and acquiring natural resource information. As a program of the Montana State Library, NRIS's mission is to make information on Montana's natural resources easily and readily accessible. Serving government agencies, business and industry, and private citizens, NRIS operates a clearinghouse and referral service to link users with the best sources of information and service.

The Montana State Library houses the NRIS program for two reasons: The State Library is a neutral agency with no bias in providing information, and the State Library has the mission of providing access to information.

For additional information visit the NRIS Advisory Committee page.

Tags:

Highlights from Statute

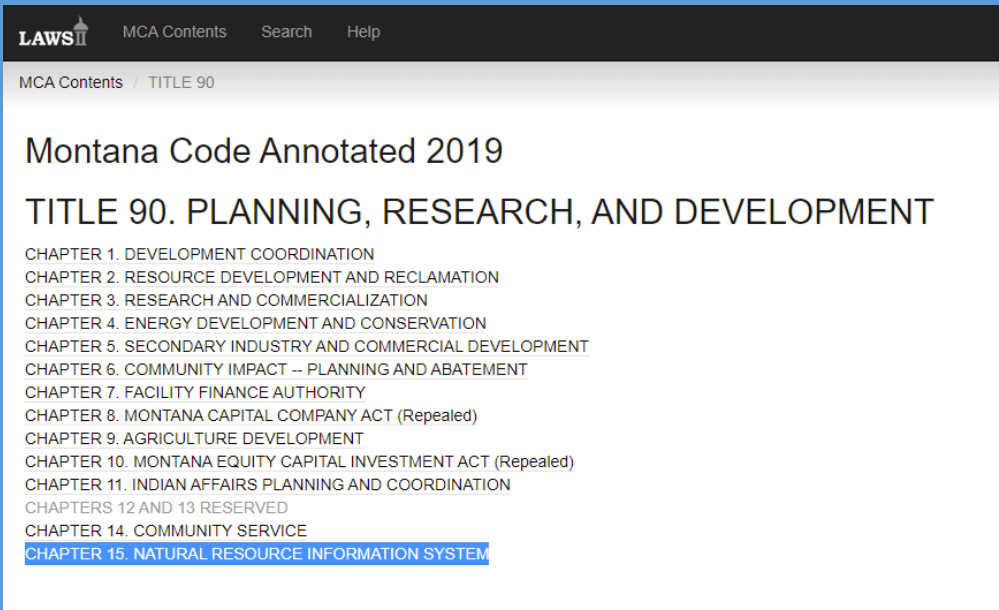**90-15-301. Establishment of information system.**

(1) ...This system is to be a **comprehensive program for the acquisition, storage, and retrieval of existing data relating to the natural resources of Montana**.

(3) It is not intended that the system shall require fieldwork to produce data. The system is **intended to facilitate the management of data collected by state agencies** in the normal course of their operations.

90-15-303. Interagency cooperation.

(2)Within the limits of available resources, **state agencies shall provide data requested by the library** for purposes of the natural resource information system and the Montana natural heritage program... It is not necessary for an agency to conduct fieldwork or literature searches to obtain requested data.

Links to all relevant stature are available at - https://about.msl.mt.gov/commission_councils/nris_advisory_committee/statutes.aspx

LAWS MCA Contents   Search   Help

MCA Contents / TITLE 90

Montana Code Annotated 2019

TITLE 90. PLANNING, RESEARCH, AND DEVELOPMENT

CHAPTER 1. DEVELOPMENT COORDINATION
CHAPTER 2. RESOURCE DEVELOPMENT AND RECLAMATION
CHAPTER 3. RESEARCH AND COMMERCIALIZATION
CHAPTER 4. ENERGY DEVELOPMENT AND CONSERVATION
CHAPTER 5. SECONDARY INDUSTRY AND COMMERCIAL DEVELOPMENT
CHAPTER 6. COMMUNITY IMPACT -- PLANNING AND ABATEMENT
CHAPTER 7. FACILITY FINANCE AUTHORITY
CHAPTER 8. MONTANA CAPITAL COMPANY ACT (Repealed)
CHAPTER 9. AGRICULTURE DEVELOPMENT
CHAPTER 10. MONTANA EQUITY CAPITAL INVESTMENT ACT (Repealed)
CHAPTER 11. INDIAN AFFAIRS PLANNING AND COORDINATION
CHAPTERS 12 AND 13 RESERVED
CHAPTER 14. COMMUNITY SERVICE
CHAPTER 15. NATURAL RESOURCE INFORMATION SYSTEM

A few more Highlights from Statute

Statute establishes the **Montana Natural Resource Information System (NRIS)** as

"a comprehensive program for the acquisition, storage, and retrieval of existing data relating to the natural resources of Montana."

NRIS includes a **Natural Heritage Program (MTNHP)** which is

"...a program of information acquisition, storage, and retrieval for data relating to the flora, fauna, and biological community types of Montana."

NRIS also includes a **Water Information System (WIS)** which

"...shall make available and readily accessible, in a usable format, to state agencies and other interested persons, information on the state's water resources, out-of-state water resources that affect the state, existing and potential uses, and the existing and potential demand.

One more Highlight from Statute

And Statute establishes a **Natural Resource Data System Advisory Committee** which

"… shall examine the following matters and make recommendations to the library concerning:

(1) criteria for the categories and types of data to be collected for a natural resource information system;

(2) criteria for the format of data collection;

(3) identification of existing sources of relevant data in the public sector;

(4) identification of data acquisition, storage, and retrieval methodologies that are economical and efficient, that minimize or eliminate the duplication of data bases, and that utilize computer networking;

(5) probable costs to agencies furnishing required data and probable costs of managing the data;

(6) probable benefits to be realized by the establishment of a natural resource information system;

(7) operation of the Montana natural heritage program;

(8) other items the committee considers of importance to the **establishment** of a natural resource information system.

A Brief History NRIS in the 80s

NRIS History: 1982 to 1998

1982

In 1982, the Montana Governor's Council on Management, recognizing the growing amounts of natural resource data and the growing need for quick access to the data, identified (in its final report) the need for greater coordination and information sharing among natural resource agencies.

1983

In response, the 1983 Montana Legislature created the Natural Resource Information System (NRIS) and the Natural Heritage Program (NHP) with the chief objective: "...to be a comprehensive program for the acquisition, storage, and retrieval of existing data relating to the natural resources of Montana." (Sections 90-15-101 through 90-15--304, MCA)

The law creating the NRIS/NHP also established a Natural Resource Data System Advisory Committee, with representatives from the state's major natural resource agencies. This committee was charged with the task of directing the development of the NRIS/Heritage programs. The committee decided to locate the programs at the Montana State Library, given its primary mandate to disseminate information and its neutral role. It also decided that the Natural Heritage Program should be implemented through a contract with The Nature Conservancy. The Nature Conservancy developed the national network of Heritage Programs with the NRIS administering that contract.

1985–1987

The 1985 Legislature provided start-up funding through a variety of sources including a Resource Indemnity Trust grant; Fish, Wildlife and Parks license fees; Office of Surface Mining funds; and funds from the Montana Nature Conservancy.

The Heritage Program began operations in October, 1985 with four people: David Genter as Director and zoologist; Steve Shelly as botanist, Nancy Grulke as community ecologist, and Lisa Shepard as the data manager. NRIS program began in December, 1985 with Larry Thompson as it's first Director and Diane Capron as assistant and data technician.

1987–1989

The 1987 Legislature reinforced the importance of NRIS/NHP. After reviewing the significant progress made in the first year of operation, legislators approved two new grants: an RIT award for NRIS/NHP operations, and a Water Development Grant to develop a comprehensive water information system. Jim Stimson joined the program in the fall of 1987 to establish the Montana Water Information System (WIS).

In addition, in the fall, NRIS entered into a contract with the Montana Department of Health and Environmental Sciences; to develop a geographic information system (GIS) to support the Clark Fork Superfund remediation. Allan Cox joined NRIS in November 1987 to establish the NRIS GIS program. Jon Sesso joined NRIS in January of 1988 as it's second Director. In February, 1988 we mourned the passing of Larry Thompson.

A Brief History NRIS in the 90s

1989–1991

From 1989 to 1991, NRIS continued to grow with increased staff and services in the NHP, GIS, and Water programs. In particular, the GIS program expanded to provide GIS services to a wide range of users and worked to develop methods for the transfer of GIS technology into other state agencies. NHP added the management of the Montana Natural Areas database to its growing services. WIS began to develop its program to support the Governor's Drought Monitoring System.

1991–1993

1991–1993 was a busy two years for NRIS: The Natural Heritage Program responded to over 440 information requests and published 28 reports including P. D. Skaar's *Montana Bird Distribution, 4th edition.* The Water Information System responded to 230 information requests and began the successful implementation of the Drought Monitoring System. The Geographic Information System responded to over 210 service requests, while re-tooling with new hardware and software that greatly increased system capabilities.

Also, during 1992 Allan Cox became the third NRIS Director and Fred Gifford became the new GIS Coordinator. During 1992–1993, the Heritage program responded to over 600 information requests and published more than 20 reports. Of particular note is that the Heritage database was loaded onto the U.S. Forest Service Region 1 computer in Missoula. This allowed USFS personnel from all of Region 1, down to the ranger district level, to directly access the Heritage information. The Water Information System filled nearly 300 information requests and began work on a groundwater atlas for Montana. The Geographic Information System responded to over 500 service requests while also managing 15 different GIS projects. Total NRIS staff grew to 19 people.

1993–1995

During FY 1994 we filled over 1850 requests for natural resource information and services. This year also marked NRIS's initial use of Internet services. That usage continued into 1995 with the initial development of an on-line natural resource information clearinghouse.

NRIS also had the distinction of being the first state in the nation to develop an automated service for the search and retrieval of digital map information, as part of the National Spatial Data Infrastructure. NRIS staff now included 22 people in Helena with three Heritage staff located as shared positions with the U.S. Forest Service in Missoula.

For the 1996–97 biennium, NRIS became one of the first State programs to develop a performance budget based on measurable goals and objectives. This innovative method of budgeting and managing budgets called for NRIS to implement three major goals:

- Operate a Natural Resource Information Clearinghouse
- Support Interagency Data and Standards Coordination
- Provide User Support and Assistance

A Brief History
NRIS in the (late) 90s

1996–1998

Fiscal year 1996 was a busy time for NRIS. The GIS, WIS, and NHP filled over 2,180 mediated requests for natural resource information and services. During 1996, 1997, and 1998, NRIS continued to expand internet services including deployment of a File Transfer Protocol (FTP) server, electronic mail services for all of the NRIS staff and the State Library, and a Telnet server that allowed remote log in to the NRIS network. The most visible Internet service, the public Web site, was enhanced and expanded to be the center piece of NRIS clearinghouse activities and services. With its myriad of links to other related sites around the nation, the NRIS web site was a major step forward in making natural resource information easily and readily accessible for all Montanans.

During FY 1997 alone, there was an average of nearly 1,700 user sessions per week on the NRIS web site. In addition, NRIS began hosting Web sites for other state agencies including: the Montana Department of Fish, Wildlife and Parks, the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation, and the Montana Historical Society. The Internet services NRIS and these agencies are providing extend access to all Montana citizens regardless of the time of day or where they may live.

In 1998, Jim Stimson became NRIS's fourth Director.

nris.mt.gov December 21, 1996. Oldest web capture of the NRIS Website

NRIS Structure 1987 – 2006?

- **Natural Heritage Program**

- **Water Information System**

- **Geographic Information System**

From an organization structure perspective, through the 1990s there was an NRIS Director who oversaw the managers of each of these three programs.
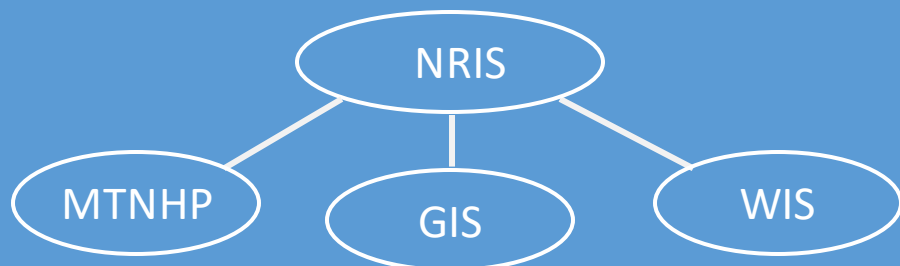
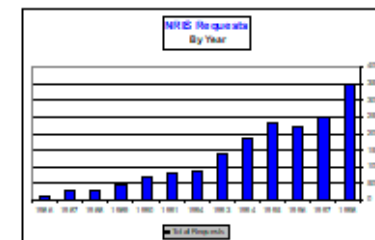## MONTANA Natural Resource Information System

What is NRIS?

NRIS is the State's clearinghouse for natural resource information. Our mission is to make information on Montana's natural resources easily and readily accessible.

NRIS Service Goals

➢ **Provide a Natural Resource Information Clearinghouse:** NRIS does this through the inventory, acquisition, storage, and dissemination of information.

➢ **Support Interagency Data Coordination:** To effectively operate the clearinghouse and provide accurate data, NRIS promotes interagency coordination, sharing of information, and the development of data standards.

➢ **Provide User Support and Tools:** NRIS also helps users make the best use of the information by providing technical assistance, consulting, and development of information analysis and interpretation tools.

NRIS has three components.

- The **Natural Heritage Program (NHP)** focuses on biodiversity information: plants, animals and natural communities, emphasizing those that are rare, declining, or of outstanding quality.

- The **Water Information System (WIS)** is a starting point for finding and acquiring information on all types of water information including: water quality, groundwater, surface water, water rights, climate data.

- The **Geographic Information System (GIS)** provides maps, map data, analytical services, and technical assistance for the growing number of users of computerized mapping programs.
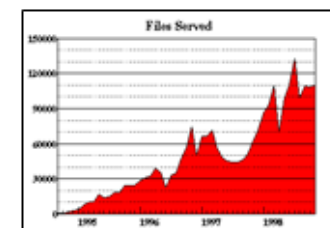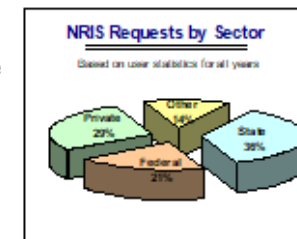
Files Served by NRIS's Website

Why is NRIS in the State Library?

The Montana State Library houses the NRIS program for two reasons: The State Library is a neutral agency with no bias in providing information, and the State Library has the mission of providing access to information.
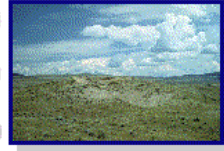
Contact NRIS:

Natural Resource Information System
Montana State Library
1515 East 6th Avenue
Helena, Mt. 59620-1800

Phone: (406) 444-5354
Website: http://nris.state.mt.us

nris.state.mt.us – December 12, 1998

nris.state.mt.us – September 21, 2003

NRIS - Filling in the gaps after 1998

By the mid-2000s NRIS, MTNHP, and the WIS were viewed as components of the Digital Library (alongside the State Publications Center).

In this model the NRIS manager was replaced by the Digital Library Director. Organizationally, NRIS, GIS, and WIS were merged into a work unit consisting of an NRIS Manager, several GIS Analysts, and a database/developer position.'

This was the basic structure of NRIS when I was hired into the role of NRIS Manager in 2009

Digital Library
— MTNHP
— NRIS
— WIS
— State Pubs
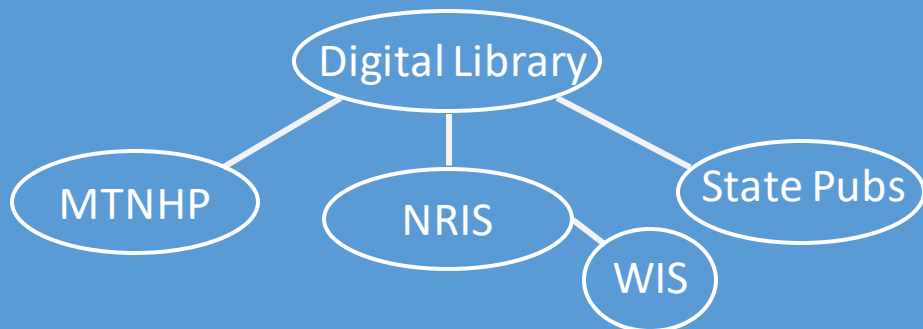
Digital Library

- Specialized library dealing with unique aspects of government information – publications and databases
- Joins resources of four statutory programs:
  - ✓ Natural Resource Information System
  - ✓ Natural Heritage Program
  - ✓ Water Information System
  - ✓ State Publications Center

Natural Resource Information System (NRIS)

- Data gathered, combined and cross-referenced from 12 state and 11 federal agencies
- Primary point of access for geospatial information for use in GIS applications
- National leader using the Internet as a means to disseminate agency information
- Extensive on-line map library includes the Montana Digital Atlas/TopoFinder
- Montana Water Information System

GIS Changes in Montana State Government through the 2000s

External changes also drove changes to how the NRIS program was viewed both within the library and by MSL partners and patrons.

What started as the GIS Bureau within the Department of Administration (DOA) in the early 2000s with an emphasis on developing a statewide cadastral dataset would later become home to the Montana Land Information Act (MLIA), the Montana Spatial Data Infrastructure (MSDI), the that state GIS Coordinator and Geographic Information Officer and would become known as the Base Map Service Center (BMSC).

From roughly 2005-2012 MSL and DOA attempted to reconcile ongoing BMSC responsibilities for Land Information including Mapping Control, Cadastral, Structures and Addresses and Boundaries datasets with existing MSL/NRIS responsibilities for Natural Resource themes including Elevation, Hydrography, and Wetlands. This process led to the development of the "MSDI Framework Assistance" document which put forth a model for NRIS and BMSC to cooperatively support the Montana Spatial Data Infrastructure (MSDI). This document was presented to both the NRIS Advisory Committee and the Montana Land Information Advisory Council in June 2009. While neither group took action on the document, it became the foundation for discussions between MSL and the BMSC that would eventually lead to the consolidation of the BMSC and NRIS at the State Library.

NRIS
2009-2012

NRIS Program Information
September 26, 2010

- NRIS Employees
  - Evan Hammer – NRIS Manager
  - Gerry Daumiller - GIS Programmer/Analyst
  - Duane Lund - GIS Programmer/Analyst
  - Diane Papineau - GIS Programmer/Analyst
  - Vacant– GIS Web Developer

- MSL Support
  - Jennie Stapp - Director of Digital Library/CIO
  - Kris Schmitz - Central Services Manager
  - Carol Churchill - Accouting Technician
  - Tom Marino - Web System Manager
  - Cindy Phillips – Network Administrator

NRIS Continued to operate in this manner until 2012 when responsibility for Montana Land Information Act and the staff of the Base Map Service Center were moved from the Department of Administration to the State Library.

NRIS Program Information
September 26, 2010

- Clearinghouse – http://nris.mt.gov/gis/
  - Montana GIS Portal – http://gisportal.mt.gov
  - Montana Maps – http://nris.mt.gov/gis/gisdatalib/mtmaps.aspx
  - Interactive Applications – http://nris.mt.gov/interactive.asp
    - Interactive map tools
    - Data query systems

NRIS Program Information
September 26, 2010

- Contracts – to provide services that contribute to NRIS core goals
  - NRCS Cooperative Agreement
  - MLIAC Framework Data Layer Stewardship
    - National Hydrography Dataset
    - Aerial Imagery
    - Elevation
    - Geographic Names
  - DNRC Water Rights Query System
  - DEQ Query Systems

**nris.state.mt.us –
February 2, 2006**

**nris.mt.gov –
March 1, 2012**

NRIS 2012 - Present

With the addition of the staff of the BMSC in 2012 along with new responsibilities of GIS Coordination and Montana Land Information Act oversight, the Digital Library was re-organized with NRIS GIS Analysts and BMSC GIS Analysts combined under the State GIS Coordinator under the Geographic Information (GeoInfo) group.

Since that time there have been additional organizational change within the Digital Library and across MSL but what has remained consistent for the last 9 years is that NRIS is no longer a dedicated set of staff members within MSL. Instead, NRIS, much as it was in its early years, is supported by staff across MSL including MTNHP staff, Land and Water Information staff, the GIS Coordinator and her staff, as well as Information Products and IT staff.
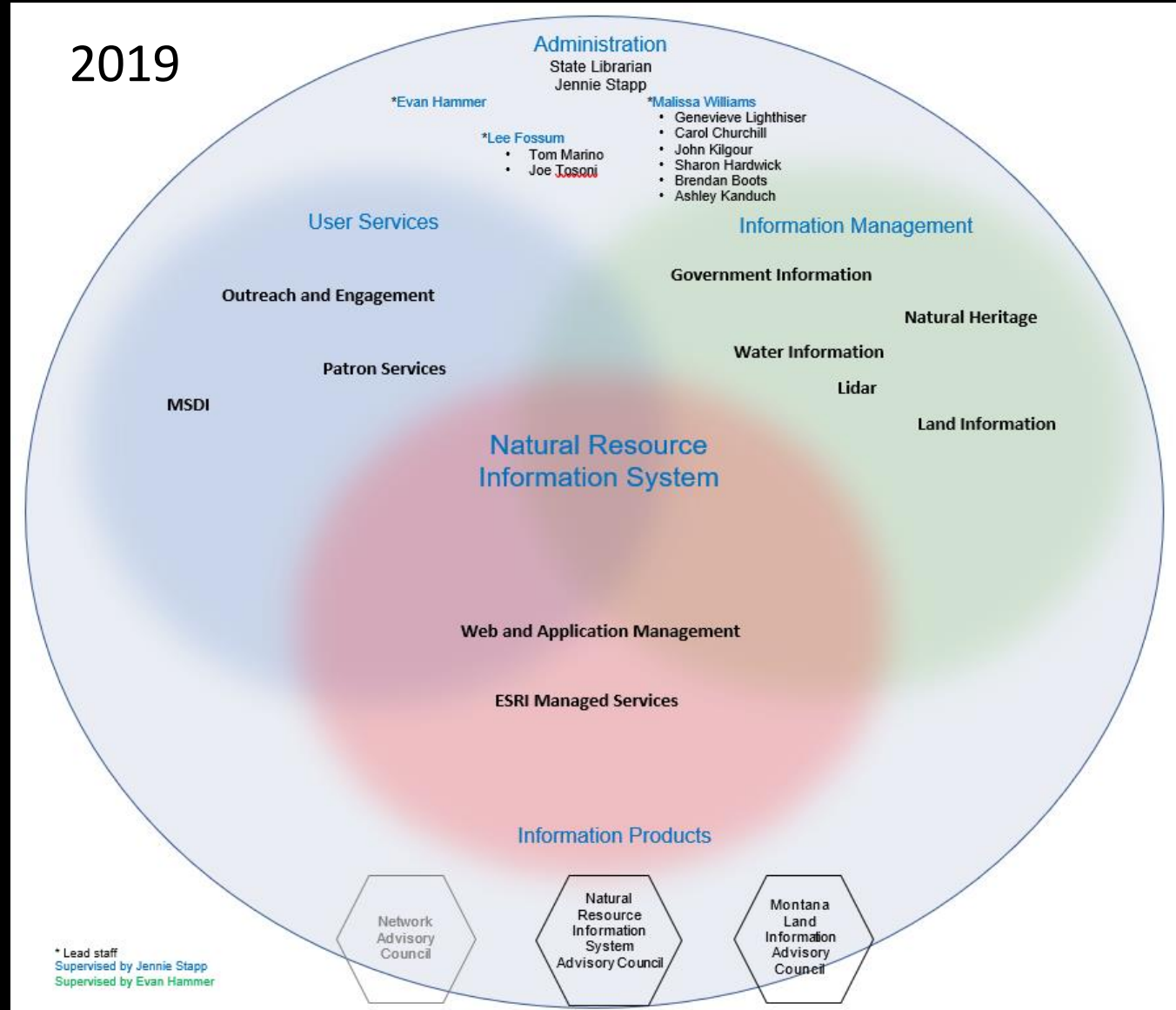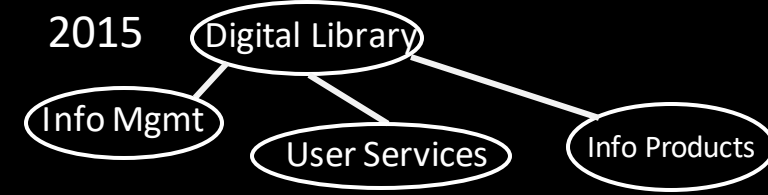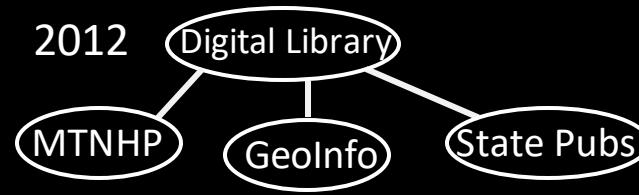
NRIS Vision

This version of the functional Org Chart highlights work teams currently supporting aspects of the NRIS Statute. Rather than remove the other teams I have kept them here in gray.

It is reasonable to think that as we pursue the Community Hub concept there will be increasing integration between out consultants and NRIS resources. The development of a team of GIS consultants is another idea that has been kicked around over the years.

Identifying ways to expose more NRIS resources to our TBL Patrons through resources like tactile maps has been discussed as has the idea of more Natural Resource audio recordings including, perhaps, better access to the MTNHP field guide audio collection.

Geocoding state publications and other catalog records, indexing water information to the MSDI Hydrography Dataset (the vision for WIS), and integrating more of our resources (web applications, web maps, spatial data, etc) into our State Publications collection and cataloging them accordingly will transform the relationship between NRIS and the Montana Shared Catalog.
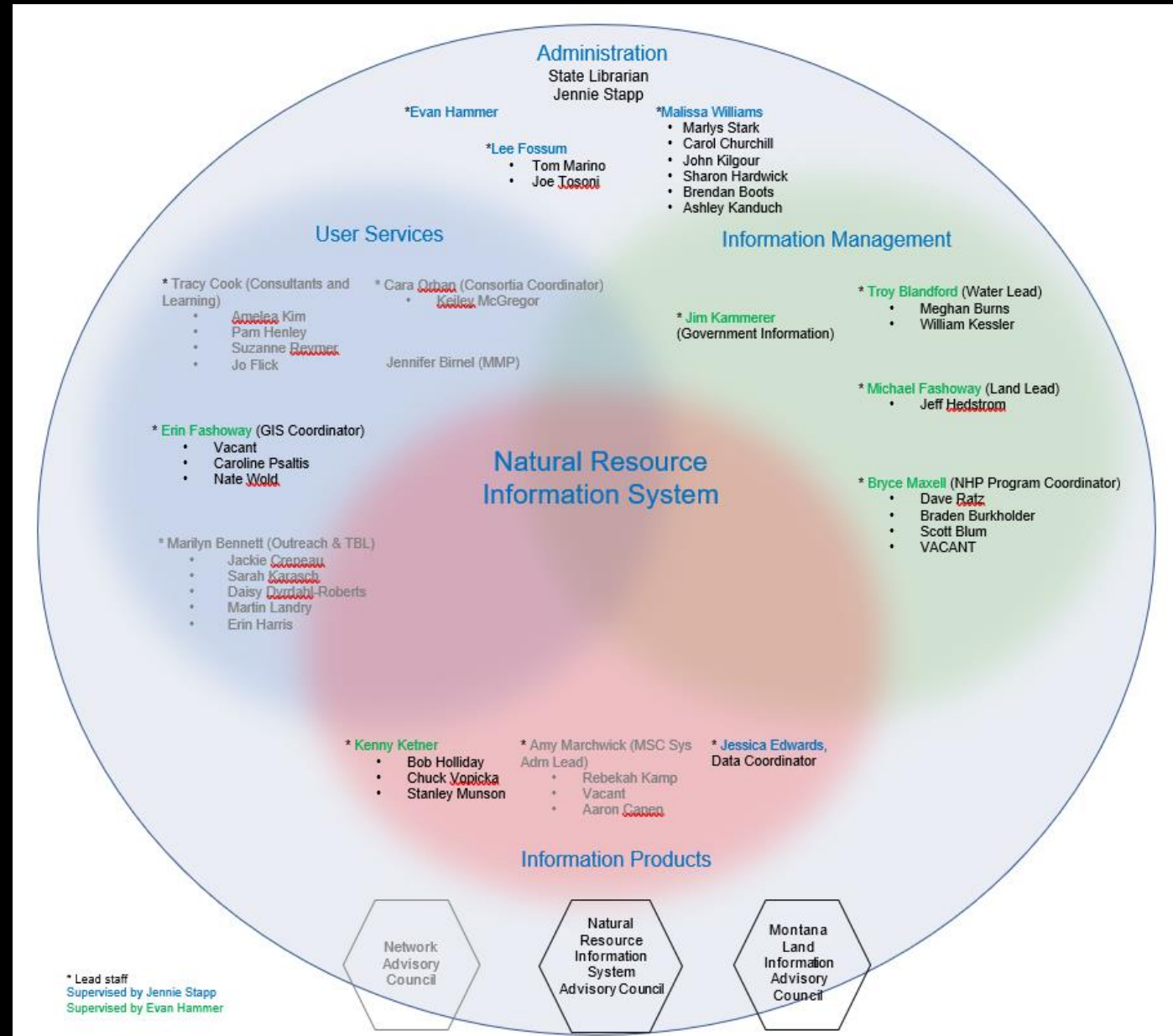
NRIS Tools

NRIS Core Tools - Geographic Information Clearinghouse

- **Data List** – Find Data (1997)
- **Digital Atlas** – Map and View Data (1998/1999/2004)
- **Data Bundler** – Extract Datasets (2003)
- **Montana Maps** – View Maps (1997)
- **Web Map Services** – Connect to GIS datasets (2005/2015)

https://gisservicemt.gov/arcgis/rest/services/MSDI_Framework

ArcGIS REST Services Directory

Home > services > MSDI_Framework

JSON | SOAP

Folder: MSDI_Framework

Current Version: 10.61

View Footprints In: ArcGIS Online Map Viewer

Services:

- MSDI_Framework/Boundaries (MapServer)
- MSDI_Framework/ConservationEasements (MapServer)
- MSDI_Framework/GeoNames (MapServer)
- MSDI_Framework/Hydrography (MapServer)
- MSDI_Framework/LandCover (MapServer)
- MSDI_Framework/ManagedAreas (MapServer)
- MSDI_Framework/MappingControl (MapServer)
- MSDI_Framework/NAIP_2005CIR (ImageServer)
- MSDI_Framework/NAIP_2005 (ImageServer)
- MSDI_Framework/NAIP_2009 (ImageServer)
- MSDI_Framework/NAIP_2011 (ImageServer)
- MSDI_Framework/NAIP_2013 (ImageServer)
- MSDI_Framework/NAIP_2015 (ImageServer)
- MSDI_Framework/NAIP_2017 (ImageServer)
- MSDI_Framework/Parcels (MapServer)
- MSDI_Framework/PLSS (MapServer)
- MSDI_Framework/PublicLands (MapServer)
- MSDI_Framework/Roads (MapServer)
- MSDI_Framework/Structures (MapServer)
- MSDI_Framework/Transportation (MapServer)
- MSDI_Framework/WatershedBoundaries (MapServer)
- MSDI_Framework/WetlandsRiparian (MapServer)

Supported Interfaces: REST   SOAP   Sitemap   Geo Sitemap

Data List Search Results

Search Criteria: [None - all records returned]

Modify Existing Search

| | Current Records (226 results) | Historic Records (155 results) |

Rank	Title	Data Provider		Data Status
1	Montana Geographic Names Framework	Montana State Library	★ MSDI	Current
2	Montana Hydrography Framework (National Hydrography Dataset)	U.S. Geological Survey	★ MSDI	Current
3	Montana Managed Areas	Montana State Library	★ MSDI	Current
4	Montana Wetland and Riparian Framework	Montana Natural Heritage Program (MTNHP)	★ MSDI	Current
5	Montana Wetland and Riparian Framework - Map Service	Montana Natural Heritage Program	★ MSDI	Current
6	Watershed Boundary Dataset for Montana	U.S. Department of Agriculture, Natural Resources Conservation Service, National Geospatial Center of Excellence	★ MSDI	Current
7	Montana Transportation Framework	Montana State Library	★ MSDI	Current
8	Montana Incorporated Cities and Towns	Montana State Library	★ MSDI	Current
9	Tribal Nations in Montana	Montana State Library	★ MSDI	Current
10	Montana School Districts	Montana State Library	★ MSDI	Current
11	State of Montana Boundary	Montana State Library	★ MSDI	Current
12	Montana Weed Control Districts	Montana State Library	★ MSDI	Current
13	Montana Structures/Addresses	Montana State Library	★ MSDI	Current

Montana ePass
Login

Data List Quick Search

Go

Search by single word or exact phrase

Advanced Search

- Browse Full Data List
- Help - Users
- Help - Publishers

Data Categories

- Montana Spatial Data Infrastructure (MSDI)
- Biota
- Boundaries
- Climatology/Met
- Economy
- Elevation
- Environment
- Farming
- Geoscientific Information
- Health
- Imagery/Base Maps/Earth Cover
- Inland Waters
- Intelligence/Milit
- Location
- Oceans
- Planning Cadastre
- Society
- Structure

Data Bundler

The Data Bundler clips GIS datasets from the Montana State Library's geographic database to an extent of your choice. You may also download statewide datasets. The Bundler allows you to choose the coordinate systems and file formats to receive your data in.

Start by picking the geography you would like to clip data by:

- Select One
- Census Designated Place
- County
- Incorporated Cities and Towns
- PLSS – Township, Range, Section
- Reservation
- Watershed Subbasin
- User Drawn Polygon **(please do not draw polygons larger than a county)**
- Download Statewide Datasets

Montana Digital Atlas

Note: Map layers are loading slowly, and certain layers may not respond at all. The report tool will also sometimes fail to complete. We are working to fix these issues.

Map Gallery

MONTANA RESPONSE: COVID-19 - Coronavirus - Global, National, and State Information Resources

Current Wildfires - Montana

Map of Montana

Montana Schools and School Districts

Montana Lidar Inventory

Channel Migration Zones Montana: Map of Available Project Areas

Montana Administrative Boundaries

Montana Population Projections 2001-2060 (REMI)

Montana Structures/Addresses Framework Web Map

Montana CadNSDI

2010 Census Boundaries with Population, Race and Housing Units

Montana Community Anchor Institutions

NRIS Users

General Public

NRIS - Map Gallery and Digital Atlas, Cadastral

WIS – Drought/Water Supply Maps, Drought Impacts Map

MTNHP - Map Viewer, Field Guide

State and Federal Agency Employees

NRIS - Map Gallery and Digital Atlas, Cadastral

WIS - Drought and Water Supply Maps, Lidar Inventory

MTNHP - Map Viewer, Field Guide

Natural Resource Professionals

NRIS - Data List, Data Bundler, Web Map Services, Cadastral

WIS – Lidar Inventory

MTNHP - Map Viewer, Field Guide

Real Estate Professionals

NRIS – Cadastral

MTNHP - Map Viewer

Engineering

NRIS - Data List, Data Bundler, Web Map Services, Cadastral

WIS – Lidar Inventory

MTNHP - Map Viewer, Field Guide

Planning

NRIS - Data List, Data Bundler, Web Map Services, Cadastral

WIS – Lidar Inventory

MTNHP - Map Viewer, Field Guide